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# MONOGRAPH

OF THE

# BRITISH APHIDES.

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BY

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Ψύλλαι μὲν μικραὶ μάλα μυρίαί, αὐτὰρ ἐκάστην  
δάκνει ψυλλιδίων μικροτέρων ἀγέλη·  
ψυλλιδίων γενεάν ἑτέραν αὖ πολὺ μείονα δάκνει  
Ψυλλίδε' οὐ λήγει πρᾶγμα' ἐς ἄπειρον ἰόν.—  
Μελεάγρου, ὡς δέ τινες, Στρεψιάδου

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MDCCLXXXIII.

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5.—DIAGNOSIS AND DESCRIPTIONS OF THE NORTH AMERICAN FOSSIL APHIDES DRAWN ON PLATE CXXXIII OF THIS MONOGRAPH.\*

As the genera of fossil Aphides cannot be regarded as identical with recent genera, for classifying the Insects now to be described, I propose the following generic and specific names:

SIPHONOPHOROIDES ANTIQUA, *Buckton*. Plate CXXXIII, fig. 1.

Winged female. Body fusiform. Abdomen oval and pointed. Antennæ setaceous and very long = 1.4. † Expanse = 3. Legs longer than the body. Cubitus straight; stigmatic cell very small; stigmatic vein nearly straight. Stigma narrow and inconspicuous. Cubital vein twice forked. Only one oblique vein is visible on this upper wing, but doubtless another existed. Cornicles and cauda absent. Faint bands of colour appear as fasciæ across the abdomen.

With the exception of showing no cornicles, which have probably been lost, this insect has all the chief features of a *Siphonophora*. As a reference to a recent form I specify *Siphonophora urticae*. Mag. = 8 diam.

SIPHONOPHOROIDES SIMPLEX, *Buckton*. Plate CXXXIII, fig. 2.

Winged female. Head and body rather short.

\* These figures are reproduced from Mr. S. H. Scudder's plate by his kind permission.

† For the convenience of measurement in these drawings I take the length of the whole body from head to apex as unity, to which all other measurements are referable.

Antennæ setaceous; length 1.7. Legs moderate, about equal in length to the antennæ. Rostrum normally long. Wings folded pent-wise; length = 2.

As this insect is seen in profile, the exact veining of the wings is not obvious. The whole insect recalls a recent *Siphonophora* rather than an *Aphis* proper. Reference to *Siphonophora pelargonii*. Mag. = 10 diam.

ARCHILACHNUS PENNATUS, *Buckton*. Plate CXXXIII, fig. 3.

Winged female. Body long and spindle-shaped; 1.0 × 0.4. Antennæ about the length of the body, somewhat setaceous. Wings very long and narrow; expanse 3.3. Stigma also long and narrow. Cubital space partly filled with pigment. Stigmatic cell large. Cubitus twice forked. Insertions in the cubitus very far back in the wing. The two oblique veins spring very close to the insertion of the cubital vein. Hind wings wanting. No nectaries are visible. The abdomen seems to have been pale and spotted.

It appears to have been a fine species, perhaps allied to our recent *Lachnus pinicolus*. Mag. = 8 diam.

ANCONATUS\* DORSUOSUS, *Buckton*. Plate CXXXIII, fig. 4.

Head, thorax, and abdomen very broad; 1.0 × 0.5. Two conical eminences seem to mark the seats of former cornicles. Wings with a strong cubitus and pointed stigma, which latter is carried partly round the stigmatic cell. Length of wing = 1.5. The cubital vein has but a single fork. Oblique veins are two in number.

\* (From ἀγκών, cubitus, an elbow).

This large *Aphis* recalls, chiefly by the wing-veining, a *Schizoneura*, but the form of the body better accords with a *Lachnus*. Mag. = 6 diam.

*SCHIZONEUROIDES SCUDDERI*, *Buckton*. Plate CXXXIII, fig. 5.

Body long and oval. Eyes large. Thorax broadly banded with pigment. Abdomen distinctly ringed and barred with spots and fasciæ very like a modern *Aphis*. Length to breadth as 1 to 0.3. Fore wing very broad, with a very indistinct stigma. Cubitus far removed from the costal margin. Stigmatic cell very large. Cubital vein once forked, and followed by two oblique veins, the second of which is much curved. An under wing still remains with this specimen, but it is much folded. Neither antennæ nor legs are to be seen in the matrix. The wing-veining is unusual, but possibly the insect may be referred for comparison to *Schizoneura ulmi*. Mag. = 12 diam.

*PTERCSTIGMA RECURVUM*, *Buckton*. Plate CXXXIII, fig. 6.

The body of this insect has some resemblance to the last insect, but it is too much crushed for a decision as to character. The abdomen is ornamented by six square patches of colour. The eyes are rather large. The antennæ are fragmentary, but show two basal and the remains of two other joints. A rostrum with three joints protrudes from one side of the head. The wing is very long and pointed, with a remarkably attenuated stigma like that of *Colopha ulmicola*, *Monell*. If the stigmatic vein is not displaced by pressure, it is remarkable. Probably the cubital vein had one if not two furcations. Recalls *Lachnus longistigma* of *Monell*. Mag. = 8 diam.

# 6.—DISTRIBUTION OF APHIDES.

We learn from their fossil remains that Aphides in ancient times were diffused over a large area of the world's surface. Their modern representatives are no less widely scattered. The fact also is interesting that so many well-known species are common to countries widely separated by distance. Thus, out of the 185 British species and varieties in this Monograph, the annexed very imperfect table has been drawn up, which shows, subject to the uncertainty attendant on the strict identity of species at such distant parts, the diffusion of these insects over certain areas.

Aphidinae.	England.	Germany.	Italy.	America.
{ Siphonophora .	40	28	15	9
{ Aphis .	45	29	20	5
{ Other genera .	45	32	28	11
Lachninae .	19	13	11	4
Schizoneurinae .	7	4	4	2
Pemphiginae .	10	8	6	1
Chermesinae .	8	5	1	1
Rhizobiinae .	11	1	6	0

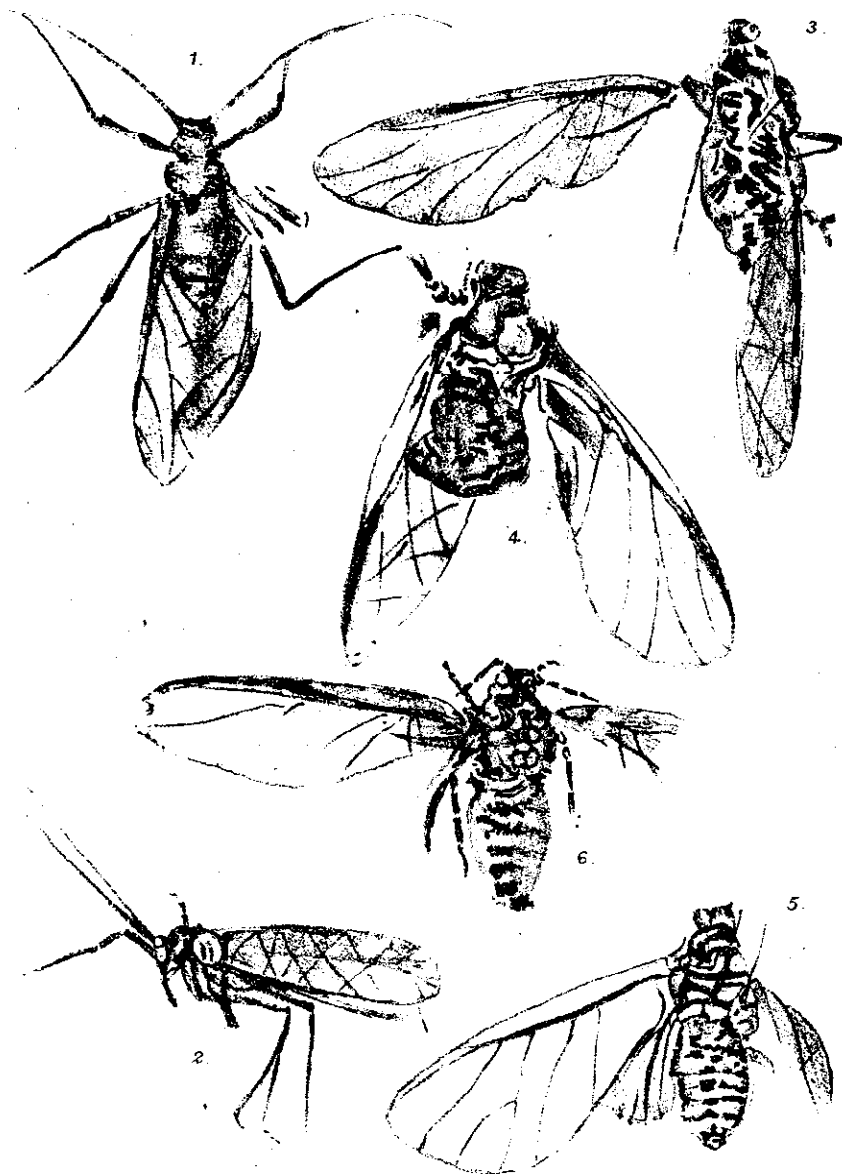
In answer to my inquiries, Mr. J. Monell, of St. Louis, writes that he thinks the most northern American *Aphis* yet described is *Pemphigus tessellatus*, *Fitch*. *Hermaphys rhois* also occurs far north in Ontario. Perhaps the most southern *Aphis* of North America is the cotton louse, *Aphis gossipii*, a published description of which is still wanting. It extends southwards to St. Louis, and eastwards throughout the whole length of the Mississippi valley. *Pemphigus vagabundus* is common over the greater part of the United States, and is found on the slopes of the mountains of Colorado.

The *Aphis*-eating *Asaphes* is a native of South America; and the *Hemerobiinae* and *Coccinellidæ* are also widely spread over that continent. The presence

PLATE CXXXIII.

Fossil Aphides, after Scudder.

- Fig. 1.—*Siphonophoroides antiqua*. (Page 176.)  
 Fig. 2.—*Siphonophoroides simplex*. (Page 176.)  
 Fig. 3.—*Archilachnus pennatus*. (Page 177.)  
 Fig. 4.—*Anconatus dorsuosus*. (Page 177.)  
 Fig. 5.—*Schizoneuroides Scudderi*. (Page 178.)  
 Fig. 6.—*Pterostigma recurvum*. (Page 178.)



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Fossil Aphides.  
 after S.H. Scudder.